

REMARKS

The Official Action mailed December 18, 2003, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statement filed on March 10, 2003.

Also, the Applicants note the *partial* consideration of the IDS filed on November 26, 2003. Specifically, it appears that the Examiner inadvertently overlooked the citation of "Examiner's Refusal Decision, Japanese Patent Office, August 26, 2003" (full translation). The Applicants respectfully request that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of the "Examiner's Refusal Decision" cited in the Information Disclosure Statement filed November 26, 2003.

Further, the Applicants have not received acknowledgment of the Information Disclosure Statement filed on February 18, 2000. The Applicants respectfully request that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of this Information Disclosure Statement.

Initially, the Applicants appreciate the time taken by the Examiner to clarify the status of the claims in the *Telephone Interview* of December 15, 2003.

Claims 1-9, 16, 18-32 are pending in the present application. Claims 1, 3, 16, 18 and 30 have been amended to better recite the features of the present invention. Claims 24-26 have been withdrawn from consideration by the Examiner. Accordingly, claims 1-9, 16, 18-23 and 27-32 are currently elected, of which claims 1, 16, 18 and 30 are independent, and claim 18 is generic. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested. The Applicants note with appreciation the allowance of claim 6 (page 13, Paper No. 13).

Paragraph 4 of the Official Action notes a typographical error in the title of the invention. In response, the Applicants have amended the title of the application to correct the error.

Paragraph 6 of the Official Action rejects claims 1, 2, 4, 5, 7-9, 16, 18-23 and 27-32 as obvious based on U.S. Patent No. 5,497,366 to Fujisawa. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1 and 16 have been amended to recite a series of adjacent photodetectors. Also, independent claims 18 and 30 have been amended to recite a plurality of spatially separated spots. As

described in detail below, Fujisawa does not teach or suggest at least the above-referenced features of the present invention.

The optical pickup apparatus of the present invention operates to focus spots (M, E, F, G, H, I, and J) of light beams on a plurality of tracks in order to simultaneously read information recorded on an optical disc. Thus, the uniqueness of the present invention resides in using the spots of the plurality of light beams (being spatially separated) which are simultaneously entered on the plurality tracks of the optical disc, respectively. In contrast, in the optical pickup device of Fujisawa, a plurality of spots of light beams that are spatially separated is not used. Therefore, Fujisawa does not teach or suggest "objective spot forming means (30) for forming each spot (M, E, F, G, H, I, and J) of a plurality of light beams" or "a series of adjacent photodetectors" as recited in claims 1 and 16, or "spot forming means (126) for forming a plurality of spatially separated spots (M, E, F, G, H, I, and J) of each light beam" as recited in claims 18 and 30.

Referring to Fig. 11 of Fujisawa, there are shown two photo detectors 98 and 99. However, at column 15, lines 58-66, of Fujisawa, the following is described:

... a second optical path of reflected laser beams traveling through optical disc 1, object lens 51, reflection mirror 84, collimator lens 83, beam splitter 82, multi-lens 85, and photo detector 98 in order recited; and a third optical path of incident laser beams traveling through the emitting surface of semiconductor laser 80, optical path recessed portion 90, grating 81, optical path recessed portion 95, beam splitter 82 and photo detector 99 in order recited.

Judging from the above descriptions in Fujisawa, the optical paths of respective lights propagated from the optical source to the photo detectors 98 and 99 are different from each other, and moreover, the photo detector 99 does not receive the reflected light from the spot. Therefore, while the optical pickup device of Fujisawa is provided with two photo detectors, these two photo detectors do not teach or suggest a "series of adjacent photodetectors each ... for receiving reflected light of each spot" as claimed in the present invention.

Furthermore, it appears that photo detectors 98 and 99 are oriented in completely opposite directions. The Applicants respectfully submit that, given the description in the specification of Fujisawa, that it would not have been obvious to one of ordinary skill in the art at the time the invention was made to use photo detectors 98 and 99 in a manner similar to that described in the independent claims of the present invention. Specifically, as described at column 15, lines 27-30, "second photo detector 99 for detecting a portion of incident laser beams optically separated by beams splitter 82 is attached." The photo detector 99 serves to detect a portion of the incident laser beams and it is impossible for the reflected light to enter the photo detector 98 due to the directionality of the beam splitter.

As stated above, it is evident that at least three components used in the optical pickup apparatus of the present invention (i.e., "objective spot forming means (30) for forming each spot of a plurality of light beams," "a series of adjacent photodetectors each provided for each spot (M to J) for receiving reflected light of each spot," and "a series of adjacent photodetectors" as recited in claims 1 and 16, or "spot forming means (126) for forming a plurality of spatially separated spots (M, E, F, G, H, I, and J) of each light beam," as recited in claims 18 and 30), are not taught by Fujisawa at all. Accordingly, it is believed that the present invention is distinguished from that of Fujisawa for at least the above reasons, and the present invention is not rendered obvious by Fujisawa.

In the present Official Action, the following counterarguments were asserted against the Applicants' arguments which were presented in response to the previous Official Action.

Regarding the Applicants' argument that Fujisawa does not teach a plurality of light beams and a plurality of photo detectors which are the unique features of the present invention, the following counterarguments were provided in the Official Action (pages 11-12, Paper No. 13):

FIRST: It seems there is problem of semantics here. Since Fujisawa very clearly shows ALL the elements. Yes, Fujisawa does not

use word "plurality of beams" or "plurality of photodetectors", however Fujisawa has all these parts exactly as claimed. For example, Fujisawa discloses that even in the prior art there are at least three beams going and coming out the recording surface [see fig. 4, itself, and col. 4, lines 26-30 and 45-52], not the mention the fig. 14 also shows the same thing.

SECOND: It should also be pointed out that word "beams", itself teaches more that one beam, or "plural beams". As to plural photodetectors; units **98** and **99** are shown in several places of Fujisawa, [e.g., col. 15, lines 38-41] and they are also pointed out in the previous action. Since there are plural beams, inherently they cast plural spots by definition. And since there are plural spots that are being monitored, one must have plural photo detectors and/or photo-sections.

Regarding the Applicants' argument that Fujisawa only teaches an optical pickup device that uses a single spot by a single light and Fujisawa fails to each any arrangement in which a plurality of spots are formed on a recording medium, the following counterarguments were provided in the Official Action (page 12, Paper No. 13):

FIRST: Fig. 4 is prior art. However even that art shows plural beams. Yes look at the same figure 4. For example mirror 48 has THREE going in AND going out. Similarly disk 1 is receiving and reflecting THREE beams. Figure cannot be any more clear than this also col. 4, lines 27-28 says "semiconductor laser **44** as a light source for emitting laser beams".

SECOND: fig. 14 within the embodiment also shows three or more beams.

Regarding the Applicants' argument that Fujisawa shows that the light paths to the photo detectors 98 and 99 are different from each other and this photo detector 99 does not receive the reflected light, the following counterarguments were provided in the Official Action (page 12, Paper No. 13):

FIRST: The aspect of "light paths being different for respective lights [beams]" is incidental since that aspect has NOT been claimed.

SECOND: As to "the photo detector 99 does not receive the reflected light." At col. 15, lines 40-42, Fujisawa discloses "and photodetectors **98, 99** for receiving **reflected laser beams** [emphasis added] .."

The Applicants respectfully disagree with and traverse the above counterarguments in the Official Action. The counterarguments are improper, because they are based on an incorrect interpretation of the technique of Fujisawa. The Applicants will provide below an explanation of why it is believed that an incorrect interpretation of the technique of Fujisawa is provided in the Official Action.

The Official Action appears to assert that the three lines as shown in each of Fig. 4 and Fig. 14 represent distinct light beams. The Applicants respectfully disagree. The three lines shown in Figs. 4 and 14 of Fujisawa are only used to represent the extent of the light outgoing from the laser source (44), and Figs. 4 and 14 do not teach or suggest three adjacent or spatially separated light beams. Although the word "beams" is used in the specification, the mere use of the word "beams" does not teach or suggest a plurality of beams being spatially separated. Rather, the word "beams" appears to refer to a plurality of beams being successively created with the passage of time. Even assuming that there are actually three light beams, it is clear (as seen from Figs. 4 and 14) that those light beams converge at one spot on the optical disc. Furthermore, at column 4, lines 39-44, of Fujisawa, it is described that "[f]urther, the infinite optical system constitutes a second optical path by multi-lens 49, and photo detector 30 comprised of photo detecting element to which reflected laser beams passed through the multi-lens 49 are incident, which are disposed oppositely to beam splitter 46 on the optical axis perpendicular to the above-described first optical path" (emphasis added). This means that a single photo detector comprised of a single photo detecting element is used. Therefore, the Applicants respectfully submit that, in the arrangement of Fujisawa, only a single light beam exists in any one point in time, and, at best, a plurality of light beams in different times are successively created from this single beam.

Therefore, the Applicants respectfully submit that the refusal position in the final Official Action is not proper because it is based on an incorrect interpretation of Fujisawa. As such, the Applicants respectfully submit that the arguments presented in response to the previous Official Action are still valid.

For the reasons stated above, the Applicants believe that the present inventions recited in the pending claims are not rendered obvious by Fujisawa. However, in order to fully distinguish the present invention from Fujisawa's invention, the independent claims have been amended to recite a series of adjacent photodetectors (claims 1 and 16) and a plurality of spatially separated spots (claims 18 and 30). These features are not taught or suggested by Fujisawa, because the two photo detectors 98, 99 of Fujisawa are not adjacent to each other or spatially separated.

In summary, the cited prior art reference, Fujisawa does not teach or suggest the following unique features of the present invention (as recited in the independent claims):

- (i) a plurality of spots of light beams which are spatially separated; and
- (ii) a series of adjacent photodetectors, each of which receives the reflected light of a corresponding spot.

Since Fujisawa does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 23 of the Official Action rejects claim 3 as obvious based on the combination of Fujisawa and EP 0 316 959 Noda et al. Noda does not cure the deficiencies in Fujisawa. The Official Action relies on Noda to allegedly teach a plurality of light reception areas for divisionally receiving one light beam (page 9, Paper No. 13). Fujisawa and Noda, either alone or in combination, do not teach or suggest all the features of the independent claims of the present invention. Specifically, it would not have been obvious from Noda to modify the opposed photo detectors 98, 99 of Fujisawa into an objective spot forming means for forming each spot of a plurality of light beams, a series of adjacent photodetectors, or a spot forming means for forming a plurality of spatially separated spots of each light beam. Since Fujisawa and Noda do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot

be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789